UNITED STATES TARIFF COMMISSION

CLINICAL THERMOMETERS

Report to the President on Investigation No. TEA-IA-1 Under Section 351(d)(2)(5) of the Trade Expansion Act of 1962

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C O N T E N T S

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REPORT TO THE PRESIDENT

U.S. Tariff Commission,
May 2, 1963.

To the President:

This report is made pursuant to section 351(d)(2) of the Trade Expansion Act of 1962 (76 Stat. 900), 1/ which provides that--

> Upon the request of the President or upon its own motion, the Tariff Commission shall advise the President of its judgment as to the probable economic effect on the industry concerned of the reduction or termination of the increase in, or imposition of, any duty or other import restriction pursuant to this section or section 7 of the Trade Agreements Extension Act of 1951.

Introduction

Following an investigation by the Tariff Commission under section 7 of the Trade Agreements Extension Act of 1951, the President, by proclamation dated April 21, 1958, withdrew the concession in the General Agreement on Tariffs and Trade on clinical thermometers, finished or unfinished, wholly or in chief value of glass, provided for in paragraph 218(a) of the Tariff Act of 1930, effective after the close of business on May 21, 1958 (Proclamation No. 3235; 3 CFR, 1954-1958 Comp., p. 151). This action resulted in an increase in the duty on such thermometers from 42-1/2 percent ad valorem to 85 percent ad valorem, the rate originally fixed in the Tariff Act of 1930.

Following the issuance of Proclamation No. 3235 the Commission maintained a continuing review of developments with regard to clinical thermometers pursuant to paragraph 1 of Executive Order 10401 of

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1/ This report is also submitted as the Commission's first report on clinical thermometers for the purpose of sec. 351(d)(1) of the act.

October 14, 1952 (3 CFR, 1949-1953 Comp., p. 901) and made two reports to the President concerning such developments. 1/ After assembling information on developments with regard to clinical thermometers during the year following the Commission's second paragraph 1 report (May 1961), the Commission, on its own motion, instituted an investigation for the purposes of paragraph 2 of Executive Order 10401. A hearing in connection with this investigation was held on August 28, 1962, at which all interested parties were given opportunity to be present, to produce evidence, and to be heard.

The Trade Expansion Act of 1962 was enacted on October 11, 1962, while the aforementioned investigation under paragraph 2 of Executive Order 10401 was still in progress. Section 351(d) of that act superseded Executive Order 10401, 2/ and the Commission, on October 24, 1962, issued a public notice to the effect that the investigation concerning clinical thermometers instituted under paragraph 2 of Executive Order 10401 was being continued under the provisions of 351(d) of the Trade Expansion Act. No additional hearing was ordered by the Commission, but interested parties were advised that request for an additional hearing might be filed within 20 days after the notice of continuation of the investigation under section 351(d) was published in the Federal Register. No request for an additional hearing was received by the Commission.

1/ U.S. Tariff Commission, Clinical Thermometers Finished or Unfinished: Report to the President . . . Under Executive Order 10401, 1960 and 1961 (processed).

2/ Executive Order 10401 was formally terminated by sec. 12(b)(3) of Executive Order 11075 (28 F.R. 473).

Probable Economic Effect of Reduction or Termination of Increase in Duty on Clinical Thermometers

A reduction or termination of the increase in the duty on clinical thermometers would probably idle productive facilities, weaken an already low profit position, lead to a further decline in employment, interrupt a readjustment movement now taking place in domestic production, and cause firms to curtail research and capital investment programs which are underway.

Restoration of the concession, in whole or in part, could be expected to lead to larger imports, not only from Japan (which currently supplies virtually all the imports) but also from other countries. In addition, the price differential between domestic and imported thermometers, already large, might be further increased or foreign suppliers could otherwise take advantage of a tariff reduction to improve their competitive and profit position.

Even without a duty reduction, the current economic position of domestic producers of clinical thermometers is not strong; any increase in import competition above the levels of recent years would weaken it further. In 1957 domestic producers of thermometers finished from domestic blanks accounted for about 84 percent, in terms of quantity, of the finished thermometers sold in the United States; by 1961 the corresponding share was only 64 percent, largely as a result of import competition. There has also been a decline in the volume of employment provided by domestic producers.

As indicated by the financial data reported by the Commission, 14 single-product concerns that accounted for about 45 percent of the U.S. sales value of finished thermometers made from domestic blanks in 1961 had a generally unsatisfactory profit-and-loss experience in the 1957-61 period. 1/ Annual dollar sales by these concerns in both 1960 and 1961 were at the lowest in the 5-year period. Absolute aggregate profits of these firms in both 1960 and 1961 were less than half the aggregate dollar profits in 1957, and the ratio of their aggregate net profit to net sales was 3.3 percent in 1960 and 3.4 percent in 1961, compared with 6.4 percent in 1957. Whereas only 1 of these concerns reported losses in both 1957 and 1958, 5 reported losses in 1959, 4 did so in 1960, and 7 in 1961.

Of the 20 domestic producers making finished clinical thermometers from domestic blanks, 17 are single-product manufacturers whose production and sales consist almost exclusively of such thermometers. Such concerns are obviously more vulnerable to competition, whatever the source, domestic or foreign, than the multiproduct manufacturers. Moreover, the bulk of the single-product firms are small concerns that do not have the financial resources to long withstand competition more intense than they are now experiencing. Casualties among the producers of finished thermometers would almost certainly rise if competition from imports were to increase.

1/ In the course of its investigation the Commission also obtained financial data from other domestic producers of finished thermometers, but it may not publish that data since doing so would reveal the operations of individual firms.

Of the three types of firms engaged in producing finished or unfinished thermometers from domestic materials, the independent blankmakers show by far the sharpest declines in net sales and employment between 1957 and 1961. This situation is attributable mainly to certain producers of finished thermometers having installed their own blankmaking departments and largely stopping purchases from the independent blankmakers. The latter have thus been confronted with a dwindling market. Irrespective of the effects of any additional changes that might be made by the remaining domestic customers of the blankmakers, the latter would incur a further erosion of their already sharply reduced business if imports of either finished or unfinished thermometers were to increase.

Producers which in 1961 accounted for about 80 percent of the sales of finished thermometers made from domestic blanks supplied the Commission with evidence that they have undertaken programs to improve efficiency and reduce costs. These efforts have consisted mainly of the partial mechanization of production operations and the establishment, or relocation, of plants in areas having low labor costs. The programs, which have required substantial investment, are still in process; further capital outlays over the next 3 years are contemplated. With domestic producers in the midst of endeavors to improve production techniques and efficiency in the effort to meet the present level of competition from imports, further import competition would be likely to disrupt these programs and possibly discourage their continuation entirely.

In considering whether even a moderate reduction in the duty would result in increased U.S. imports from Japan, the Commission was fully aware that voluntary quantitative and price controls on exports to the United States have been imposed on Japanese exporters by the Japan Machinery Exporters' Association, which operates under the aegis of the Ministry of International Trade and Industry (MITI). The quota for the Japanese fiscal year beginning April 1, 1962, and ending March 31, 1963, was set at 26,922 gross. This figure covers exports to the customs territory of the United States (which includes Puerto Rico) and to the Virgin Islands of the United States. The export quota applies to finished thermometers and complete thermometer blanks but not to incomplete thermometer blanks.

Although statistics on U.S. imports, reported officially on a calendar year basis, are not fully comparable with statistics on exports from Japan, reported on a fiscal year basis, it is observed that imports of finished thermometers and complete thermometer blanks received in the United States and the Virgin Islands from Japan totaled 20,553 gross in 1960 and 21,297 gross in 1961. It would appear, therefore, that the quota for the year ending March 31, 1963, contemplated significantly larger aggregate annual sales of these articles in the United States and the Virgin Islands. Moreover, the quota places no restriction on Japanese exports of incomplete thermometer blanks which were an important factor in U.S. imports in both 1960 and 1961. Moreover, Japan's export quota is voluntary; hence action in administering and policing it, and in determining how long it will remain in effect, is controlled by Japan. This patently

introduces uncertainties regarding the future operation and maintenance of an export-control system for clinical thermometers.

Although a reduction in duty would presumably curtail the present advantage for processing foreign blanks in the Virgin Islands and shipping the finished thermometers to the United States free of duty, there would still be at least a savings in tariff duty in processing thermometer blanks in the Virgin Islands. However, the quantity of finished thermometers shipped to the United States from the Virgin Islands in the years 1958-61 was approximately equivalent to the decline in these years in the quantity of thermometers finished from imported blanks in the continental United States. Hence there has been no significant increase in the total quantity of thermometers finished from imported blanks entering the U.S. market as a result of processing operations in the Virgin Islands, and there is no indication of any immediate change in this situation on the basis of existing U.S. tariffs and Japan's restrictions on exports of thermometers.

It is clear that even a moderate reduction in the duty would provide Japanese suppliers with a substantial incentive to increase their thermometer sales in the United States. If more than a token reduction was made in the duty, other foreign producers of clinical thermometers would doubtless endeavor to increase their sales in the U.S. market. West German producers, for instance, have indicated that under such circumstances they would expect to expand their sales of clinical thermometers in the United States.

A reduction in the duty would thus generate strong economic incentive for foreign producers of clinical thermometers to increase their exports

to the United States, thereby intensifying the severe competitive pressures from imports already confronting domestic producers.

Respectfully submitted.

Ben Dorfman, Chairman

Joseph E. Talbot, Commissioner

Walter R. Schreiber, Commissioner

Glenn W. Sutton, Commissioner

William E. Dowling, Commissioner

James W. Culliton, Commissioner

Information Obtained in the Investigation

Description and use

A clinical thermometer, or "fever" thermometer, as it is more popularly known, is a self-registering instrument for measuring body temperatures. Such a thermometer consists of a glass capillary tube approximately 4 inches long, to which is attached a small glass bulb. The opening of the bulb connects with one end of the bore of the tube; the other end of the bore is sealed. Mercury is sealed in the bulb and part of the tube. Magnification properties of the tube, resulting from the prismatic construction of its walls, enables the column of mercury to be read in conjunction with an engraved scale on the tube's surface. An enamel strip, usually white, is embedded in the glass to serve as a contrasting background for the mercury column. Thermometers used in the United States are usually calibrated in degrees and fifths of degrees, Fahrenheit, with a scale ranging from 96° to 106°. Clinical thermometers are made from several varieties of lens clinical tubing. The so-called standard lens clinical tubing used in the manufacture of more than 90 percent of all domestic clinical thermometers is triangular in shape and has the familiar white background. Other varieties have features designed to facilitate reading. For example, one variety is oval shaped, sometimes termed a "flat"; another variety has red enamel lines parallel to the white enamel strip to cast a red reflection on the mercury, giving it greater contrast against the white background. These latter varieties of tubing are considerably more expensive than the standard variety.

The manufacture of clinical thermometers has two distinct phases. The first, the manufacture of the thermometer blank, comprises more than 100 operations; the second consists of 25 or more finishing operations involved in making the temperature scale (determined separately for each thermometer because of slight variations in the dimension of the bore of the tubing), engraving, pigmenting, and testing. Until recently, clinical thermometers were manufactured almost entirely by hand. During the last several years, however, a number of the larger producers have, at substantial expense, successfully mechanized certain of these manual operations. 1/

In use, the bulb end of the thermometer is inserted into a body cavity where heat from the body causes the mercury column to rise until the highest temperature to which the thermometer is exposed is reached. By means of a constriction in the bore of the tube, the expanded column is prevented from contracting back toward the bulb. Before reuse, the thermometer must be reset by shaking until the mercury registers several degrees below normal body temperature.

The shape of the bulb is generally determined by the use for which the thermometer is intended. The thermometer for oral use, the most common type, has a tubular-shaped bulb slightly more than one-half inch in length. The rectal thermometer, used primarily in hospitals and clinics, has a pear-shaped bulb. A thermometer with a short, stubby bulb less than one-fourth inch in length is generally used for infants and children, and may be used either as an oral or a rectal instrument.

1/ See further discussion of mechanization in the section "U.S. firms engaged in producing clinical thermometers."

Other types of clinical thermometers are veterinary thermometers and basal thermometers. The former are used for measuring the temperature of large animals, and the latter, for ovulation tests. These two types, however, account for an extremely small percentage of clinical thermometers sold in the United States.

U.S. tariff treatment 1/

Clinical thermometers, finished or unfinished, are dutiable under paragraph 218(a) of the Tariff Act of 1930. The rate originally provided in the 1930 act was 85 percent ad valorem. Pursuant to a concession granted in the General Agreement on Tariffs and Trade, the rate was reduced to 42-1/2 percent ad valorem, effective October 1, 1951. The present rate of 85 percent ad valorem was restored by Presidential Proclamation No. 3235, effective after the close of business on May 21, 1958 (see table 1).

In 1959 a ruling by the U.S. Bureau of Customs made it necessary to mark the name of the country of origin on complete blanks. 2/ As a result of a later (March 1962) ruling, however, complete blanks entering the United States no longer are required to be marked by country

1/ Customs treatment in the Virgin Islands is discussed under "Operations in the Virgin Islands."

2/ Unfinished thermometers are known in the trade as blanks. A complete thermometer blank is a blank that has been processed up to but not including calibration, engraving, pigmentation, and testing. An incomplete thermometer blank is a blank that must be further processed before it can be calibrated, engraved, and so forth. The effect of the change in marking requirements on the composition of imports is indicated in the section "U.S. imports."

origin in a manner that would survive further processing. Incomplete blanks need not be marked, but clinical thermometers entering the United States in a finished condition must be marked with the name of the country of origin, a requirement that has remained unchanged since 1930.

U.S. firms engaged in producing clinical thermometers 1/

Producers of finished thermometers made primarily from domestically produced blanks.--In both 1961 and 1957 virtually all known sales of finished thermometers made from domestic blanks were accounted for by 20 firms, although in the intervening years 1 firm ceased production and another entered the business (table 3). Of the 20 concerns producing finished clinical thermometers from domestically produced blanks in 1961, 17 produced clinical thermometers almost exclusively, and 3 were sizable multiproduct concerns. The 3 multiproduct concerns, however, accounted for more than half of the total value of sales of finished thermometers by all 20 concerns. Other products manufactured by these 3 concerns were mainly hospital supplies and scientific instruments. For the largest of the 3 multiproduct concerns, clinical

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1/ Unless otherwise indicated, the terms "U.S. producers" and "domestic producers" refer to (1) the U.S. firms whose production of finished thermometers is primarily from domestically produced blanks, (2) U.S. firms that produce finished thermometers primarily from imported blanks, (3) U.S. firms that produce thermometer blanks for sale, and (4) contractors that specialize in one or more of the operations necessary to produce a clinical thermometer.

thermometers accounted for a small part of total net sales in 1961; for the second largest, clinical thermometers accounted for a minute part of total net sales; and for the smallest, they represented a moderate share of total net sales.

Until recently two of the largest domestic producers of finished thermometers, which are multiproduct concerns, purchased the major share of their blanks either from domestic blankmakers or from domestic producers of finished thermometers that also made blanks for sale. These two producers have relocated their operations, however, and have set up their own blankmaking facilities; by 1961 they had virtually ceased the outside purchase of blanks.

During the period 1957-61 several domestic producers, in an attempt to lower their costs, invested nearly a half million dollars in mechanizing various operations formerly performed by manual labor. These firms have indicated that in the next 3 years they intend to invest in excess of a million dollars to mechanize additional production operations. Although some of the production steps have been successfully mechanized, the shift from hand labor to completely mechanized operations will probably require several years. Finishing operations, however, which are fairly simple, are well mechanized in many of the larger plants. Hence, the 100 or more steps necessary in the production of blanks offer the greatest potential for future

mechanization. Probably the greatest barrier to complete mechanization at this time is the lack of uniformity in the dimension of the bore of the available lens clinical tubing.

Producers of finished thermometers made primarily from imported blanks.--During the period January 1957 through June 1962, two companies accounted for virtually all the imports of clinical thermometer blanks and their conversion into finished thermometers. Both are located in Long Island City, N.Y. One company, a multiproduct firm, specializes in the importation, production, and sale of hospital and laboratory supplies. In addition to its imports of blanks, it imported finished thermometers during the years 1959-61 for sale in the United States. The other, also a diversified firm, manufactures clinical thermometers and plastic containers.

Blankmakers.--Domestic blankmakers operate small establishments, have little equipment, and rarely employ more than a few workers. Most of the blankmakers are located in the New York area; however, there are several in the vicinity of Nashville, Tenn., and one each in Pennsylvania, Alabama, Mississippi, and New Jersey.

The reduction in the market for domestic blanks since 1958 (table 4) is mainly attributable to the two large domestic producers of finished thermometers establishing their own blankmaking facilities, and, to a lesser extent, to the importation of finished and unfinished thermometers into the United States during the period 1957-61 and into the Virgin Islands during 1960-61.

Contractors.--In 1961 approximately 30 independent contractors specialized in one or more of the operations necessary to produce a clinical thermometer. Only 4 contractors had any employees other than themselves; the largest employed 10 persons. Each contractor either maintained a shop of his own or rented space from a blank-maker.

A contractor usually receives his material from the firm for which he is performing the specialized service; his charge generally covers his labor and miscellaneous expenses. Some contractors, however, purchase tubing from the domestic producer of such tubing and bill their principals for its cost, as well as for labor and miscellaneous expenses.

U.S. consumption

The apparent annual consumption of finished clinical thermometers in the United States in recent years is shown in table 2. Consumption was 101,000 gross in 1957, reached a high of 119,000 gross in 1958, and was 112,000 gross in 1961. The average annual consumption during 1957-61 was about 108,000 gross. Consumption in January-June 1962 amounted to about 60,000 gross, compared with about 49,000 gross during the corresponding period of 1961. 1/

1/ These semiannual totals are comparable with one another; however, they are not strictly comparable with the annual totals since they do not include sales by a few small concerns for which the Commission obtained annual data. These small companies accounted for less than 6 percent of the sales of finished clinical thermometers made from domestically produced blanks.

Although increases in population and in the formation of new family units contributed to increased consumption of clinical thermometers during the period under review, other factors caused sudden short-term fluctuations in demand. In 1958 an epidemic of Asian influenza caused unusually high demand; in 1959, however, consumer purchases of thermometers were unusually low, partly as an aftermath of the preceding abnormally high sales.

The share of annual consumption of clinical thermometers in the United States accounted for by thermometers made from domestic blanks decreased steadily from about 84 percent in 1957 to about 64 percent in 1961, based on quantity. Thus an increasing share of annual consumption has been accounted for by imported finished thermometers and thermometers finished in the United States from imported blanks. The Commission obtained data on sales in the U.S. market by all sources of supply, including sales of thermometers finished from imported blanks in both the continental United States and the Virgin Islands, but this information cannot be published without revealing the operations of individual firms. However, as shown by the available statistics, from 1959 through 1961 imports of finished thermometers increased rapidly, and they have become by far the largest factor in U.S. imports (table 8).

The U.S. Government, the largest single domestic buyer of finished thermometers, has greatly increased its purchases of imported thermometers in recent years. The share of its total purchases obtained from importers rose from nil in 1957 to 81 percent in 1961. Contracts were

awarded in 1960 for the purchase of 3,982 gross, and in 1961 for the purchase of 8,437 gross. The Commission has no information on when deliveries have been or will be made under these contracts. However, the quantity contracted for by the Government in 1961 was equivalent to about 8 percent of the apparent consumption in that year.

U.S. production, sales, and inventories

There are no official statistics showing the U.S. annual production of clinical thermometers; however, the Commission obtained data on sales from virtually all known U.S. producers of clinical thermometers. Inasmuch as the producers' yearend inventories of finished thermometers have not varied greatly from year to year, the data for their annual sales of finished thermometers are indicative of the volume and trend of their annual production.

Sales by domestic producers.--Some 20 domestic producers that accounted in 1957-61 for the great bulk of the clinical thermometers manufactured from domestically produced blanks reported total sales of 85,000 gross of finished thermometers in 1957; 98,000 gross in 1958; 1/ 71,000 in 1959; 79,000 in 1960; and 71,000 in 1961 (table 3). Sales in the first 6 months of 1962 by the 14 concerns that supplied such information were 37,778 gross, compared with sales of 31,237 gross by the same firms in the comparable months of 1961. 2/

1/ Sales were unusually high in 1958, largely as a result of the epidemic of Asian influenza in that year.

2/ The firms that did not supply sales data on a 6-month basis accounted in 1961 for less than 6 percent of sales of finished clinical thermometers made from domestically produced blanks.

The average unit sales value per gross of finished thermometers made by domestic producers from domestic blanks increased from $79.03 in 1957 to $83.56 in 1959, then declined to $76.67 in 1960, and to $73.37 in 1961.

A considerably lower annual average unit value prevailed during 1957-61 for imported finished thermometers and thermometers finished in the United States and in the Virgin Islands from imported blanks. The average unit value of such thermometers rose from $47.49 in 1957 to $50.65 in 1958, and then declined to $49.42 in 1959, $45.68 in 1960, and to $45.41 in 1961 (table 3).

Sales by blankmakers.--Sales of blanks by the blankmakers that accounted for virtually all known sales of domestically produced blanks during the period 1957-61 are shown in table 4. Such sales rose from 15,533 gross in 1957 to 16,809 gross in 1958, then declined steadily to 11,501 gross in 1961. The average unit sales value per gross of such blanks rose from $31.44 in 1957 to $32.33 in 1958 and to $32.99 in 1959; it declined to $29.69 in 1960 and then rose to $30.92 in 1961.

Inventories.--Table 5 summarizes the value of inventories of finished thermometers and thermometer blanks reported by 13 domestic producers for the years 1958-61. The total value of such inventories rose from $2,027,000 at the end of 1958 to $2,264,000 at the end of 1959, then declined to $1,483,000 at the end of 1960, and to $1,123,000 at the end of 1961. The decline reflected in large part a decrease in inventories of thermometer blanks. The 13 producers from whom inventory

information was obtained accounted in 1961 for 80 percent of the total sales value of finished thermometers made primarily from domestic blanks.

U.S. imports 1/

Virtually all imported finished thermometers and the bulk of the thermometers finished either in the United States or in the Virgin Islands from imported blanks compete primarily with the low-priced domestically produced thermometers. Such thermometers, whether imported or of domestic origin, are provided with minimal packaging and casing; on an instrument-for-instrument basis they are generally comparable with one another. All clinical thermometers, regardless of origin, must, in order to be sold in the United States, meet the commercial standard (CS-1-52) in addition to standards imposed by the several States applicable to the thermometers sold in those respective States. Clinical thermometers purchased by the U.S. Government must also meet the applicable military and civilian specifications.

Volume.--Imports of finished and unfinished clinical thermometers into the U.S. customs territory increased from 19,000 gross in 1956 to 34,000 gross in 1959; they declined to 21,000 gross in 1960, and increased to 23,000 gross in 1961. During January-June 1962 such imports were 12,000 gross, compared with 11,000 gross in the corresponding period of 1961 (table 7). Except in 1956 and 1957, when Mexico supplied from 5 to 10 percent of the total, virtually all imports of thermometers, finished and unfinished, came from Japan.

1/ Imports into the U.S. Virgin Islands are discussed in a later section of this report.

The decline in imports of clinical thermometers, finished and unfinished, into the U.S. customs territory in 1960 and 1961 is partly attributable to the increased U.S. utilization of thermometers processed in the Virgin Islands, and partly to the reduction in those years of importers' inventories of imported blanks.

Composition.--The composition of U.S. imports changed considerably during the period under review. Before June 1959 the great bulk of U.S. imports of clinical thermometers consisted of complete thermometer blanks. Since June 1959, however, they have included higher proportions of both finished thermometers and incomplete blanks. In 1960 and 1961, finished thermometers accounted for about three-fourths of total imports of clinical thermometers into the U.S. customs territory; there were no known U.S. imports of complete blanks during those years. 1/ The change in the composition of imports resulted in considerable degree from a ruling on marking made by the U.S. Bureau of Customs in 1959, 2/ which discouraged the importation of complete blanks.

Prices of domestically produced thermometers 3/

Clinical thermometers are offered for sale by the domestic producers in a wide variety of brands and types of packaging, depending frequently on the type of sales outlet. The widest variety is offered for sale to

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1/ Included in the imports of finished thermometers into the United States in 1960, 1961, and the first 11 months of 1962 were 666 gross, 2,793 gross, and 6,436 gross, respectively, entered free of duty as "emergency purchases of war material abroad" for use by the Armed Forces (under the provisions of 10 U.S.C. 2383).

2/ Changes in rulings on the marking of complete thermometer blanks are discussed in the section "U.S. tariff treatment."

3/ The term "domestically produced thermometers" refers in this section to finished thermometers virtually all of which are made from domestically produced blanks.

the retail outlets that afford ample opportunity for competition on bases other than price. Variety is unimportant to institutional buyers, on the other hand, since the thermometers they purchase must conform to uniform specifications, and price is the main determinant in sales of thermometers to them.

The Commission obtained from individual concerns their net selling prices f.o.b. point of shipment in the United States, on or about June 1 of each of the years 1958-62, for their leading brands of finished thermometers, by principal outlets. The index (1958-62=100) of prices received by domestic producers for leading brands of thermometers declined from 103 in 1958 to 98 in 1961, and then rose to 99 in 1962 (table 9).

Operations in the Virgin Islands

Shortly after the increase in the U.S. rate of duty by escape-clause action in 1958, one U.S. concern that had imported thermometer blanks for finishing in the United States established a plant in the U.S. Virgin Islands for the purpose of converting imported blanks into finished thermometers. The import duty on blanks entering the U.S. Virgin Islands is 6 percent ad valorem, 1/ compared with a duty of 85 percent ad valorem on blanks imported into the customs territory of the United States. On entry into the customs territory of the United States, thermometers produced in the U.S. Virgin Islands from imported blanks have been treated as products of the U.S. Virgin

1/ Prior to Jan. 1, 1962, the 6-percent duty was subject to a 100-percent drawback; after that date it was subject to a 90-percent drawback.

Islands and have not, therefore, been subject to duty. 1/

Imports of thermometer blanks into the Virgin Islands (there were no imports of finished thermometers), which come from Japan, are shown in table 7. Such imports, as reported by the U.S. Bureau of the Census, amounted to about 4,000 gross in 1960 and 9,000 gross in 1961. During January-June 1962, they amounted to about 6,000 gross, compared with about 4,000 gross in the comparable period in 1961.

Information on sales of clinical thermometers finished in the U.S. Virgin Islands cannot be published without revealing the operations of the above-mentioned concern. But it is observed that such sales began in 1958 and that they showed a substantial increase from that year through 1961.

Employment

Data on the man-hours of employment afforded production and related workers engaged in making finished and unfinished clinical thermometers primarily from domestically produced materials, and the number of such workers, are shown in table 10. Changes in the man-hours of employment have been moderate in recent years and have reflected principally changes in production. 2/ In 1961 a total of 1.29 million man-hours were reported for these establishments, compared with 1.36 million man-hours

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1/ Sec. 301 of the Tariff Act of 1930, as amended, provides that articles manufactured or produced in U.S. possessions from materials the growth, product, or manufacture of any U.S. possession or of the United States, or of both, which do not contain foreign materials to the value of more than 50 percent of the total value of the article, are admissible into the United States customs territory free of duty.

2/ Information obtained by the Commission in this investigation on employment by multiproduct concerns covered employment in the production of finished and unfinished clinical thermometers only.

in 1957, indicating a decline of about 5 percent. Of the three categories of producers using or making domestic blanks, the blankmakers experienced the largest decline in man-hours; from 1957 to 1961 it was about 44 percent. That decline is mainly attributable to two of the largest producers of clinical thermometers, concerns which formerly purchased blanks from blankmakers, establishing facilities in the years 1958-59 to produce virtually all of the blanks they used. The shift into the manufacture of blanks by these large producers increased the volume of employment provided by them; this shift also explains why the man-hours of employment afforded workers by domestic producers of finished thermometers (made primarily from domestically produced blanks) declined less than 2 percent during the period 1957-61.

Man-hours of work afforded by the contractors declined 12 percent during the period 1957-61. This decline, however, was not as important with regard to total employment as the declines noted above for the other two categories of producers; contractors constitute the smallest part of the labor force engaged in producing clinical thermometers from domestically produced blanks.

The average number of production and related workers engaged in producing finished and unfinished clinical thermometers declined from 710 in 1957 to 678 in 1961, or by 4-1/2 percent.

The average number of workers declined in 1957-61 for each of the three categories of firms producing finished or unfinished thermometers from domestic materials. During that period the average number of

production and related workers employed by domestic producers of finished clinical thermometers (made from domestically produced blanks) declined from 632 to 616; the average number of such workers employed by blankmakers declined from 49 to 35; and the average number employed by contractors declined from 29 to 27. Thus, the relative decline in the number of production and related workers was greatest for blankmakers and least for the domestic producers of finished thermometers.

Profit-and-loss experience

Producers of finished clinical thermometers.--The Commission may not publish profit-and-loss information obtained from multi-product firms utilizing domestic blanks and from concerns that finish thermometers in the United States from imported blanks, since such publication would reveal the operations of individual firms. However, the Commission also obtained data on financial experience for the years 1957-61 from 14 domestic concerns whose production and sales consisted almost exclusively of clinical thermometers finished from domestically produced blanks. Each of these concerns operates a single establishment, and the profit-and-loss data reported by them and summarized in table 11 are those for their entire operations. As a group, the 14 single-product firms accounted for approximately 45 percent of the U.S. sales value of the finished thermometers produced from domestic blanks in 1961.

The combined net sales of the 14 single-product firms rose from approximately $2.9 million in 1957 to $3.6 million in 1958, then declined steadily to $2.5 million in 1961. The ratio of their aggregate

net profit to net sales increased from 6.4 percent in 1957 to 8.1 percent in 1958, declined to 3.3 percent in 1960, and then increased slightly to 3.4 percent in 1961. Of the 14 single-product concerns, 1 reported losses in 1957 and 1958; 5 reported losses in 1959; 4 did so in 1960, and 7 in 1961.

Producers of clinical thermometer blanks.--Thirteen firms, whose combined sales accounted for most of the blanks sold by independent blankmakers in the years under review, furnished usable profit-and-loss data for each of the years 1957-61. The manufacture and sale of blanks accounted for virtually their entire operations, and the financial data submitted were for their total (single-product) operations. Most of the blankmakers are small unincorporated firms (partnerships and individual proprietorships) in which the owners perform much of the labor and most of the administrative duties. The net return shown for blankmakers, therefore, represents the owners' total remuneration for productive labor, administrative services, return on invested capital, and profit.

The combined net sales reported by the 13 blankmakers increased from $556,000 in 1957 to $616,000 in 1958, then declined steadily to $353,000 in 1961. The net return of the group followed a pattern similar to that of their sales; i.e., net return increased from $106,000 in 1957 to $113,000 in 1958, and thereafter declined annually to $53,000 in 1961.

Statistical Appendix

Table 1.--Clinical thermometers, finished and unfinished: U.S. rate of duty under the Tariff Act of 1930 and under that act as modified to May 1963

(Percent ad valorem)

Tariff paragraph and description	Tariff Act of 1930		
	Statutory rate	Trade-agreement modification	
		Rate	Effective date
Par. 218(a):			
Biological, chemical, metallurgical, pharmaceutical, and surgical articles and utensils of all kinds, including all scientific articles, and utensils, whether used for experimental purposes in hospitals, laboratories, schools or universities, colleges, or otherwise, all the foregoing (except articles provided for in paragraph 217 or in subparagraph (e)), finished or unfinished, wholly or in chief value of glass:			
Clinical thermometers, finished or unfinished	85	42½	Oct. 1, 1951. 1/
		85	May 21, 1958. 2/

1/ General Agreement on Tariffs and Trade (Torquay).
2/ Presidential proclamation after investigation pursuant to sec. 7 of the Trade Agreements Extension Act of 1951, as amended.

Table 2.--Clinical thermometers, finished: Apparent consumption in the United States, 1957-61

Year	Sales of finished thermometers virtually all of which were produced from domestically produced blanks	Sales of imported finished thermometers; sales of thermometers finished in the U.S. from imported blanks; and shipments to continental U.S. from the Virgin Islands	Total
	Quantity (gross)		
1957	84,799	16,630	101,429
1958	97,652	21,027	118,679
1959	70,968	26,363	97,331
1960	79,114	30,844	109,958
1961	71,405	40,150	111,555
	Percent of U.S. consumption		
1957	83.6	16.4	100.0
1958	82.3	17.7	100.0
1959	72.9	27.1	100.0
1960	72.0	28.0	100.0
1961	64.0	36.0	100.0

Source: Compiled from information submitted to the U.S. Tariff Commission by domestic producers and importers and by the U.S. Bureau of the Census.

Table 3.--Clinical thermometers, finished: Sales in the United States by domestic producers and importers, 1957-61

Item	1957	1958	1959	1960	1961
Sales by domestic producers: 1/					
Number of firms	20	19	19	20	20
Quantity----------gross	84,799	97,652	70,968	79,114	71,405
Value----------1,000 dollars	6,702	7,944	5,930	6,066	5,239
Unit value----------per gross	$79.03	$81.35	$83.56	$76.67	$73.37
Sales by importers of imported finished thermometers and of thermometers finished in the United States and the Virgin Islands from imported blanks:					
Number of firms 2/	3	6	9	14	14
Quantity----------gross	16,630	20,175	25,211	33,910	37,986
Value----------1,000 dollars	790	1,022	1,246	1,549	1,725
Unit value----------per gross	$47.49	$50.65	$49.42	$45.68	$45.41

1/ The term "domestic producers" refers to concerns that finished thermometers virtually all of which were produced from domestically produced blanks. These firms accounted in every year for virtually all known sales in the United States of thermometers made from domestically produced blanks.

2/ These concerns accounted for virtually all known sales of imported finished thermometers and of sales of thermometers finished in the United States and the Virgin Islands from imported blanks.

Source: Compiled from information submitted to the U.S. Tariff Commisssion by the domestic producers and importers.

Table 4.--Clinical thermometer blanks: Sales in the United States by blankmakers, 1957-61

Item	1957	1958	1959	1960	1961
Number of firms 1/	13	14	15	15	14
Sales:					
Quantity--gross	15,533	16,809	16,170	12,839	11,501
Value--1,000 dollars	488	543	534	381	356
Unit value 2/--per gross	$31.44	$32.33	$32.99	$29.69	$30.92

1/ These firms accounted in every year for virtually all known sales of domestically produced blanks. In each of the years 1958 and 1959 a new firm began blankmaking operations, and in 1961, 1 firm discontinued such operations.

2/ Calculated from the unrounded figures.

Source: Compiled from data submitted to the U.S. Tariff Commission by the blankmakers.

Table 5.--Clinical thermometers, finished and unfinished: Value of yearend inventories reported by 13 domestic (U.S.) producers 1/ of finished thermometers, fiscal years 1958-61

(In thousands of dollars)

Item	Finished thermometers	Thermometer blanks	Total
Yearend inventory, fiscal year--			
1958	709	1,318	2,027
1959	574	1,690	2,264
1960	579	904	1,483
1961	614	509	1,123
Net change in yearend inventory, 1958-61	-95	-809	-904

1/ The term "domestic producers" refers to producers of finished thermometers made principally from domestically produced blanks.

Source: Compiled from data submitted to the U.S. Tariff Commission by the domestic producers.

Table 6.--Clinical thermometers, finished: Contracts awarded by the U.S. Government 1/ to domestic producers and to importers, 1957-61

Item	Unit	1957	1958	1959	1960	1961
Contracts awarded to--						
Domestic producers 2/	Gross	8,122	7,032	3,040	3,346	1,934
Importers 3/	do	-	1,066	1,564	3,982	8,437
Total	do	8,122	8,098	4,604	7,328	10,371
Share of total quantity awarded to--						
Domestic producers	Percent	100.0	86.8	66.0	45.7	18.6
Importers	do	-	13.2	34.0	54.3	81.4
Total	do	100.0	100.0	100.0	100.0	100.0

1/ Includes all contracts awarded by the Defense Supply Agency and the Veterans Administration.

2/ The term "domestic producers" refers to firms that produced finished clinical thermometers primarily from domestic blanks.

3/ The term "importers" refers to firms that either imported finished thermometers or thermometer blanks that they finished.

Source: Compiled from data submitted to the U.S. Tariff Commission by the Department of the Navy and the Veterans Administration.

Table 7.--Clinical thermometers, finished and unfinished: Imports into the Virgin Islands and the United States, 1956-61, January-June 1961, and January-June 1962

Period	Imports into--			
	Virgin Islands 1/		United States	
	Quantity	Foreign value	Quantity	Foreign value
	Gross		Gross	
1956	-	-	18,628	$270,283
1957	-	-	21,300	307,848
1958	-	-	32,300	481,291
1959	-	-	34,282	497,255
1960 2/	4,025	$78,296	21,025	325,863
1961 2/	9,300	132,485	23,246	373,909
January-June 2/--				
1961	3,908	58,561	10,851	175,216
1962	5,889	92,400	11,783	196,347

1/ Data on imports as reported by the U.S. Bureau of the Census.
2/ Preliminary.

Source: Compiled, except as noted, from data submitted to the U.S. Tariff Commission by the importers and by the several domestic producers that also imported thermometers.

Note.--Virtually all imports came from Japan in the years reported above except 1956 and 1957, when Mexico supplied from 5 to 10 percent of the total imports.

Table 8.--Clinical thermometers, finished and unfinished: U.S. imports 1956-61, January-June 1961, and January-June 1962

Item	1956	1957	1958	1959	1960 1/	1961 1/	Jan.-June 1961 1/	Jan.-June 1962 1/
	Quantity (gross)							
Incomplete thermometer blanks	-	-	-	3,672	4,497	4,949	2,232	1,831
Complete thermometer blanks	18,503	20,981	32,014	25,010	-	-	-	-
Finished thermometers	125	319	286	5,600	16,528	18,297	8,619	9,952
Total	18,628	21,300	32,300	34,282	21,025	23,246	10,851	11,783
	Foreign value							
Incomplete thermometer blanks	-	-	-	$26,067	$38,248	$42,749	$19,284	$15,820
Complete thermometer blanks	$268,123	$299,893	$474,344	375,136	-	-	-	-
Finished thermometers	2,160	7,955	6,947	96,052	287,615	331,160	155,932	180,527
Total	270,283	307,848	481,291	497,255	325,863	373,909	175,216	196,347

1/ Preliminary.

Source: Compiled from data submitted to the U.S. Tariff Commission by the domestic producers and importers.

Note.--Virtually all imports came from Japan except in 1956 and 1957, when Mexico supplied from 5 to 10 percent of total imports.

Table 9.--Clinical thermometers, finished: Indexes of net selling prices, f.o.b. point of shipment in the United States, for the leading brands offered by domestic producers 1/ and importers, 2/ by principal outlets, as of June 1 of 1958-62

(June 1 of 1958-62=100)

Item	June 1--				
	1958	1959	1960	1961	1962
Domestic producers' net selling prices to--					
State, municipal, and other institutions	100	101	100	99	100
Hospital supply houses	103	102	100	97	99
Druggist supply houses	103	101	100	99	98
Retailers (direct)	103	101	101	98	98
Composite index	103	101	100	98	99
Importers' net selling prices to--					
Hospital supply houses	93	101	101	102	103
Druggist supply houses	99	102	103	98	99
Retailers (direct)	96	101	101	100	101
Composite index	96	101	102	100	101

1/ The term "domestic producers" refers to concerns that produce finished thermometers largely from domestically produced blanks.

2/ The term "importers" refers to concerns that import finished thermometers, or thermometer blanks that they finish. Usable data on importers' prices to State, municipal, and other institutions are not available.

Source: Compiled from data submitted to the U.S. Tariff Commission by the domestic producers and the importers.

Table 10.--Man-hours worked by production and related workers engaged in making finished and unfinished clinical thermometers primarily from domestically produced materials, and the average number of such workers, 1957-61

Item	1957	1958	1959	1960	1961
Man-hours of production and related workers employed by--					
Domestic producers of finished thermometers	1,209,435	1,263,805	1,204,804	1,229,041	1,188,892
Blankmakers	99,935	113,755	98,185	65,683	55,549
Contractors	54,380	62,412	52,724	43,216	47,805
Total	1,363,750	1,439,972	1,355,713	1,337,940	1,292,246
Average number of production and related workers employed by 1/--					
Domestic producers of finished thermometers	632	651	644	638	616
Blankmakers	49	54	50	42	35
Contractors	29	34	28	22	27
Total	710	739	722	702	678

1/ Production and related workers included for the 3 multiproduct companies are those engaged in making clinical thermometers only; for each year the data for 1 multiproduct company have been computed on the basis of the ratio of man-hours worked on clinical thermometers only to total man-hours worked by all production and related workers.

Source: Compiled from data submitted to the U.S. Tariff Commission by domestic producers.

Table 11.--Profit-and-loss experience of 14 U.S. firms that produced clinical thermometers only (single-product firms), 1957-61

Item	1957	1958	1959	1960	1961
Net sales----------1,000 dollars--	2,939	3,560	2,831	2,566	2,497
Net operating profit (before income tax deductions)---1,000 dollars--	187	290	107	85	85
Ratio of net operating profit to net sales----------percent--	6.4	8.1	3.8	3.3	3.4

Source: Compiled from information submitted to the U.S. Tariff Commission by domestic producers.